

REMARKS

Objection has been raised against Claim 9 on the basis of an informality which has been corrected in the foregoing amendment.

Claims 1 to 15 have been rejected under 35 USC 103(a) as being unpatentable over Brailean (US 5,802,218) in view of Klippel (US 6,005,952).

Brailean will briefly be considered first. The disclosure relied upon by the Examiner (Fig. 5, Col. 6, lines 5-53) discloses a four tap linear filter providing a weighted sum of pixels in which the weightings (508) applied to each of the input pixels (504) are controllable. It is acknowledged that such filters are well known in the field of video processing. As noted by the Examiner, Brailean fails to disclose multiplication together of three linearly filtered signals to produce an improved video output.

As should be evident - and as is set out in the present specification - the signal processing effect of multiplying signals together is fundamentally different from the effect of adding together signals each of which has been multiplied by a coefficient.

In considering Claim 1, the Examiner has expressed the view that to reduce costs, it would have been obvious to incorporate into Brailean the structure disclosed in Figure 15 of Klippel. An analogous argument is advanced against Claim 12. There are, however, several compelling reasons why such a combination is not obvious. Before expanding on these reasons, it will be helpful to review briefly the disclosure of Klippel.

In Klippel, there is disclosed a method and apparatus for the active attenuation of sound by measuring sound, generating a signal in precise anti-phase in a controller and injecting a canceling sound through a loudspeaker. Klippel is particularly concerned with the non-linear behavior of that controller, necessary to model the non-linear behavior of sound propagation and, thus, cancel sound more effectively.

Active noise cancellation is a highly specialized field and there would be no motive for one of ordinary skill in the art to look to Klippel for assistance in solving a problem in suppressing compression artifacts in video. This is not just because of the obvious differences between audio and video but also because of the differences between the field of active noise cancellation and the processing of a signal to suppress compression or other artifacts.

A further critical issue concerns the non-linear behavior which is central to the function of Klippel. The structure disclosed in Figure 15, to which the Examiner refers, is

stated to show a factorable polynomial filter which can be used to realize the filters 218 and 220 of Figure 10. Both those filters 218 and 220 are clearly stated to be non-linear filters and it is indeed of the essence of Klippel that they are non-linear.

One of ordinary skill in the art would not consider the structure of Figure 15 of Klippel to be a low cost alternative to the Figure 5 structure of Brailean. It is not at all apparent how a structure such as that of Figure 15 of Klippel might be incorporated in Brailean and - even if it were - the function performed would change fundamentally.

In short, the expressed motive for a combination of Klippel and Brailean (that of a reduction in cost) is without basis. The functions of the circuit and its allegedly cheaper equivalent are in fact totally different. Moreover, the fields of Klippel and Brailean are so different that no one concerned with improving the arrangement of Brailean would consider it obvious to look at Klippel. There is no reason on the face of either document or otherwise, why the documents should be combined. Even if use of the arrangement shown in Klippel were contemplated, its inherent non-linear function would make it unsuitable for replacing the functionality as taught by Brailean.

It is respectfully submitted that the claimed subject matter is not anticipated or rendered obvious by Klippel in view of Brailean. It is further submitted that the claimed subject matter is not rendered obvious by Klippel in combination with any teaching in the field of video signal processing.

The objections raised against subordinate claims are believed to be moot in view of the foregoing.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case and that the Examiner telephone the attorneys of record in the event a telephone discussion would be helpful in advancing the prosecution of the present application.

Respectfully submitted,



Derek C. Stettner
Reg. No. 37,945

Docket No.: 087805-9016-00
Michael Best & Friedrich LLP
100 East Wisconsin Avenue
Milwaukee, Wisconsin 53202-4108
(414) 271-6560

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